

# Installation Instructions for WBID Sensors

**WARNING: Use extreme caution when working with batteries. The possibility of shock, fire, and explosion exists. Batteries produce explosive gases. Keep sparks, flame, and cigarettes away. Ventilate when working in an enclosed area. Always shield eyes when working near batteries. Facemask and gloves are recommended during WBID installation**

**WARNING: Do not lay tools on top of the battery as they may conduct electricity.**

These instructions cover mechanical and electrical installation of the temperature sensor (Ametek Part Number: 198823) and/or water level sensor (Ametek Part Number: 198848) for the Ametek Wireless Battery Identification Device (WBID). The following tools will be required for the installation:

- Portable power drill
- Sensor hole drill bit (Ametek Part Number: 198894)
- Universal crimping tool (e.g., Klein Tools J1005 Insulated Crimper, 22-10 AWG, 9-3/4 Inch )
- Wire cutting pliers
- Wire stripper
- Heat gun

**Installation:**

1. Carefully unpack the sensor from its shipping carton, and neatly lay out the parts. Check the parts against the following material list:
  - a. WBID Sensor (level or temperature)
  - b. Heat shrinkable butt splice (Quantity 2 for temperature sensor and quantity 1 for level sensor)
2. Move the battery to a clean, well lit area.
3. The battery must be clean and free of corrosion for proper operation of the WBID.

**WARNING: drilling can cause sparks that can ignite flammable gas. Please use caution with batteries that have recently been under charge or in areas with flammable gas or material.**

4. Using the sensor hole drill, make a hole in the battery jar that is clear of any other accessory or cell cap. Make certain that you are not directly above either of the cell straps that join the plate lugs to the posts as that would interfere with full insertion of the sensor. The level sensor should be installed at least 6 cells from the most negative cell for proper operation.
5. Route the sensor wires to the WBID. With your cutting pliers, trim off any excess sensor lead that is not required to reach the WBID connections. On the level sensor, there is a section covered by heat shrink – do not remove this section!
6. Temperature sensors require two leads each, while level requires only one. It is recommended that the green and yellow leads be used for the first temperature sensor, blue and white for second, and the orange or brown for the level sensor. After completing the mechanical and electrical installation, the WBID must be configured in software to properly read the new sensor.

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A	NEW	08-04-14	Index Data:		
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7. Cut the protective cap from the WBID accessory leads to be used for the sensor, and then strip ¼ inch of the insulation. Strip ¼ inch of the sensor leads as well.
8. Crimp the sensor leads to the WBID connections and use a heat gun to shrink the splices to protect against corrosion.
9. See the WBID owners manual for guidance in configuring the WBID to read and log the data from the newly installed sensor. Note: Sensors will not function unless the WBID has been properly configured to reflect the electrical connection of the sensors.

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